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ABSTRACT

The final evaluation report of the Washington, D.C. schools' career education program investigated the student's self concept, relationship with the world of work, attitudes toward career development, and decision making skills. The program was designed for inner city students in all grade levels. The teachers' choices of instructional materials for career education and the program coordinators' attitudes were also surveyed. Administration of the Self Observation Scales over a 3-year period indicated that the students in career education have a good self concept in relation to the national norm. The results of the Occupation Awareness Survey indicated that students were provided with the necessary information to delineate their relationship to the world of work, and that students in the project had an excellent understanding of the relationship between social, academic, and economic parameters of careers. Data from previous studies of decision making indicated that students in the career education project demonstrated good decision making skills. Teachers across all grade levels generally chose to use career education as a supplement and enhancement to everyday instruction in a smooth and consistent manner. The project coordinators survey results demonstrated firm support for the program. Statistical data from the tests used in this evaluation are appended. (Author/GDC)

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ANNUAL EVALUATION REPORT FOR THE EXEMPLARY PROJECT IN CAREER DEVELOPMENT

CAREER EDUCATION IN THE INNER CITY
PART D, VOCATIONAL EDUCATION
AMENDMENTS 1968

1975-76

IBEX

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CAREER EDUCATION IN THE INNER CITY
PART D, VOCATIONAL EDUCATION
AMENDMENTS 1968

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PREFACE

This annual evaluation report on "Career Education in the Inner City" is presented by IBEX, Inc. to the Board of Education of the Schools of the District of Columbia. This is the final evaluation of the District of Columbia's Career Education Program.

Appreciation is extended to Ms. Bessie Etheridge, Ms. Martha Roache, Ms. Ellen Datcher, and Dr. J.S. Rao, for the time they spent to assure an exemplary evaluation. Career education teachers went beyond the call of duty in their efforts toward this evaluation. IBEX expresses its sincere appreciation to all of them.

On the IBEX staff, Ms. Frances Pendergrass and Mr. D. Myrick played key roles. Opinions and mistakes herein are mine.

Helmuts A. Feifs
Senior Consultant

I. EXECUTIVE SUMMARY AND RECOMMENDATIONS

The U.S. Office of Education requires that all Part D Vocational Exemplary Projects have an independent third party evaluation. In response to a request for proposals from the Washington, D.C. Public Schools, IBEX, Incorporated submitted a proposal and was selected to perform the evaluation.

The evaluation activities began on May 20, 1976, with an implementaion of the design documented in our proposal. This set the parameters for the evaluation and specified the roles to be played by IBEX and the Project staff in carrying out the evaluation functions. The IBEX evaluation team was headed by Helmuts Feifs, Senior Consultant and D. Myrick of the IBEX staff.

The results of the evaluation are organized around five information domains or evaluation areas of interest. These domains are: (1) student self concept, (2) student relationship with the world of work, (3) student attitudes toward career development, (4) decision-making skills, and (5) educator attitudes.

The results of this evaluation are summarized in the following paragraphs. A detailed presentation of the results of the IBEX evaluation is found in Section IV.

°The results of the Self Observation Scales (grades 3, 6, 9, 11) taken over a three year period indicate that the students in career education, in relation to the national norm group, have a good self concept. Students show strong school affiliation, feel good about themselves and continue to show growth on most scales measured.

° The results of the Occupation Awareness survey, used to assess the student relationship with the world of work, indicate that students are being given the information they need to delineate their relationship to the world of work. Since the OAS is essentially a criterion referenced instrument, no norm referenced statement can be made regarding these students. Results of this year's evaluation and the evaluator's experience with the instrument and with the project suggest that students in the program are keenly aware of the relationships between education and career and the careers and social status.

° The results of the OAS indicate that students in the project have an excellent grasp of the relationship between social, academic and economic parameters of careers. Students in the project continue to demonstrate a sound attitude toward career development based on the results of the Career Awareness Development Inventory, (CADI).

° No results were available to assess the decision making proclivities of students in the project for the 1975-1976 school year. Based, however, on the data available for the previous two years, students in the project demonstrate good decision making skills and, in some cases, score higher than the norm on the instrument used in this evaluation.

- Results of the teacher survey indicate strongly that teachers across all grade levels wish and choose to use career education as a supplement and enhancement to everyday instruction in a smooth and consistent manner. It would seem that the numerous inservice sessions for teachers are paying dividends in modified teacher behavior.

- The results of the Career Education Coordinator's survey demonstrate the strong education support that the project has enjoyed for the duration of the project.

It is with some dismay that we, the evaluators, note that the project was not picked up for local funding and continuation as an integral part of the instructional program of the District of Columbia Schools. We have seen the maturation of the program occur over the years of our association and have seen its support grow in both the community and the schools. The generalizability of this project is very high, and if it is not to be funded, then model dissemination on a vigorous scale should be undertaken to allow other school districts to learn from the project's many successes.

II. PROGRAM DESCRIPTION *

The Problem

Pursuant to several studies of the District of Columbia's Schools including those of Odell MacConnell Associates in 1965; Dr. Harry Passow, 1967; and the Executive Study Group, 1968, all of which suggested serious faults, and reacting to the national and local concern regarding the paucity of effective Career Education Programs, the Superintendent of Schools authorized a study of the problem.

This study by a Special Task Force on Vocational Education culminated in a conceptual design for a "Plan for Career Development in the Public Schools of the District of Columbia" in 1969. Implementation of this design included a pilot mini-school program in two elementary and two junior high schools located in the area of the Spingarn Instructional Unit - the far northeast and near southeast sections of the city.

The major concerns set forth by the Task Force constitute the basic philosophy for the local Career Education Program: That career development must be an integral part of a relevant program of education at all levels;

elementary schools-career foundations, an awareness program

junior high program-career survey (introduction of career cluster concept)

senior high school-career exploration, including on-the-job experiences

The need for a comprehensive, integrated interdisciplinary Career Education Program in District of Columbia's Schools is further indicated by the excessive droupout rate (60%) and the accompanying high rate of unemployment of young adults. The proposal of 1969 addressed itself to this concern.

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* Program Description taken from Project Director's 1975-1976 final report.

The original Project, located in the far northeast section of the city established a beginning. Using a limited pilot, it developed curriculum, grades 7 and 8 (second draft);grade 9 (partial first draft) K-6 (partial first draft) and a handbook of suggested activities. Moreover, it developed a refined training model which has some promise.

With the opening of Woodson Senior High School in September, 1972, the Project hoped to see the Career Exploration and preparation phase in effect.

At the junior high school level,where dropouts technically begin, there is a great need for a special kind of program for all students and particularly for the "turned-off" students. This proposal is directed toward him and in areas of the city where he is found in exhorbitant numbers and without saleable skills. It is with the hope of raising his occupational aspirations and enriching his total societal growth that we wish to try out the model in the center city area, reaching downward to kindergarten where the problem formally begins.

Goals and Objectives of the Project

Pursuant to the proposal of the Division of Instruction, District of Columbia Schools, December 15, 1972, the stated goals of the Project include:

Process

Given one senior high school and four junior high schools and their feeder elementary schools in the congested inner city area of northwest and near northeast Washington, D.C., grades K-12, with approximately 475 teachers and 11,412 children, the Project will try out the curriculum materials developed, the standard for instructional materials and equipment previously developed by:

1. Selection of target schools
2. Orientation of faculties and community on the career development principle
3. Concentrated training of the total staff of all schools concerned prior to the beginning of work with students.

4. Provisions of material support, for all classrooms

5. Broad dissemination of the career education principle through the community

6. Development of a senior high school model

7. Evaluation of the process

8. Coordination with existing career education programs and community resources

Project Staff

Given four staff members and clerical support, Project staff will:

1. Develop and implement a comprehensive program of career education, K-12;

2. Conduct in-service training for project personnel;

3. Revise curriculum for K-6;

4. Develop curriculum for grade 9;

5. Develop a 10-12 model;

6. Provide constructive leadership throughout the implementation of the project;

7. Provide opportunities for community involvement;

8. Evaluate the model-process and content, K-12.

Pupil Objectives

Given the implementation of the Career Development Project by trained faculties with adequate supervision by the Project staff:

1. All elementary pupils will show through test results and performance, growth in awareness of the world of work and certain other societal growth in the areas of self concept, economic awareness and knowledge and skills gained through tool technology.

2. All junior high school pupils will exhibit through test results and performance a knowledge of the ten career clusters adopted by the Project for the District of Columbia and their relation to them and to the total economic picture of this area; development of positive self concept; development of positive attitudes toward school as an integral part of their world.

3. All senior high school pupils will exhibit growth desired at the junior high school level and in-depth mastery of at least one saleable skill before graduation.

Description

The Project, based in one inner city senior high school - 1336 students, faculty 58; its four feeder junior high schools, population 3888 pupils, faculty 194, and their feeder schools - ten, population 6866 pupils, faculty 265 - will involve total student body and total faculty and administrative staff of each building in the model. This Project includes the trial of curriculum, grades K-9; the standard for equipment and supply; the training model for teachers and administrators and continuing supervisor support as well as coordination with existing career education programs under the direction of the Department of Career Development Program and leading to Continuing Education.

Location of the Project in an inner city area, specifically the model cities area, a portion of the city included in the urban renewal plans for the city, affords an opportunity for trial of the design developed by an earlier project under far from ideal conditions. Housing in this area is largely substandard. The family picture is unstable. The rate of unemployment of young adults is extremely high as are economic aspirations. In short, the Project will be dealing with a hard core population which has a history of failure both economic and societal. Thus, it presents a challenging situation, perhaps the most significant the Project has ever faced.

In addition to implementing the model, the Project proposes the following additional activities:

a. An intensive community campaign to disseminate information on career education in general and the Project specifically, involving first all parents, then the community in general.

See Population Chart (page 10)

1. Presentation with audiovisual support
2. Correspondence
3. Use of the public media for support
4. Distribution of brochures concerning the Project
5. Parent conferences

b. Activation of a Parent Advisory Council, Pupil Advisory Council

c. An intensive guidance effort for junior high school pupils in cooperation with counselors, community agencies and parents and the guidance component of the model

d. A one third larger percentage of funds devoted to trips and similar high impact activities

e. An increased percentage of low reading level/high interest level materials to accomodate the low reading average of the schools

f. An increased percentage of audiovisual instructional materials

g. Modification of the teacher-training model to increase the percentage of time spent in inter-personal relations activities

h. Survey the job opportunities for part-time job experience in the vicinity of the school for ninth grade students

Key Features of the Model

The foundation for the model includes six building blocks:

Teacher commitment

Teachers working with the counselors and librarians as team members plan the program for the school and implement it in the classrooms, sharing ideas and translating them into activities into which career concepts are imbedded into the ongoing curriculum.

Adminstrators whose constructive leadership supports and enhances the efforts of school personnel, ensuring a climate where the program can develop in an orderly fashion. The commitment of the administrator makes the difference between success and failure.

Staff Development

Since career education in its present context seems new, an intensive staff development process undergirded the effort. A highly structured staff development component provides orientation, methodology, strategies, follow-up, special topic training, and continuing supervision for all project personnel throughout each school year.

Curriculum Research and Development

Curriculum research and development continue to be essential factors of the program. Committees from the faculties of the project schools with the help of consultants and project staff investigate existing curriculum, then produce curriculum guides, as needed, which serve as a point of departure for current and future implementers.

Guidance

Through a process of investigation, development, trial and revision, a coordinated guidance component has evolved. Bringing together all guidance services available to the District of Columbia Schools, a team of counselors has a developmental program for Project counselors which enables them to deliver high quality guidance and counseling to all students in Project schools.

Community Involvement

The program has involved the community from its beginning, focusing first upon parents. The community comes into the schools and students explore the community, adding resources to the learning experiences of the classroom. This partnership has not only proved valuable to students but also to the community at large by building bridges of understanding and mutual responsibility.

Upon this firm foundation, the four-stage model is built, encompassing career awareness - pre-K-6; career survey, 7-8; career exploration, 9-10; career preparation, 11-12. Throughout the structure, attention to self development, including positive inter-personal relations, inquiry, problem solving, and decision making skills, and, to the basic skills of communication and computation is an integral part of the total instructional program at all levels. Constantly monitored by an orderly evaluation design, the efficiency of the structure is assessed; revisions are made in materials, methods and management to further strengthen the whole.

The roof of the structure is multi-faceted, depending upon the career goals of the student population. Graduates of the career education program are prepared to choose the direction they will take - the world of work or continuing education. The true proof of the articulated program rests in the future.

Management

Career Education in the inner city is managed by a staff of four professionals - a director and three assistant directors; a secretary and two clerk typists; and eight educational aids assigned to the Title I component of the Project. The Center is located in a public school building where office space, a resource room, a conference room, storage space and custodial services are provided by District of Columbia Schools. Salaries of Project staff are paid from Federal grant as are materials and services provided for Project schools.

POPULATION

Beginning in 1973 with a population of 3867 students and 178 teachers and counselors, the Project grew to more than 670 teachers and counselors, and 12,673 students K-12.

SCHOOLS	FIRST YEAR		SECOND YEAR		THIRD YEAR	
	TLC	STUDENTS	TLC	STUDENTS	TLC	STUDENTS
Amidon	3	76	10	200	12	250
Bowen	--	---	2	50	2	50
Bundy	9	145	9	145	17	231
Cleveland	2	51	4	100	17	286
J.F. Cook	--	---	--	---	10	324
Crew	4	105	7	200	38	753
Goding	--	---	8	165	29	509
Lenox	9	160	9	201	17	194
Ludlow-Taylor	--	---	12	220	36	630
Sts. Paul & Augustine	6	143	2	68	11	344
Scott-Montgomery	3	57	5	75	16	454
Seaton	5	82	5	150	29	535
Simmons	--	---	--	---	27	530
Syphax	5	67	5	85	5	100
Tubman	4	75	5	116	8	200
Tyler	8	186	9	216	12	300
Walker-Jones	--	---	--	---	41	592
J.O. Wilson	--	---	--	75	40	726
Hamilton	--	---	7	100	65	1,351
Jefferson	20	719	35	605	35	610
Randall	10	200	13	200	15	300
Shaw	--	---	13	525	43	723
Stuart	6	531	6	531	38	589
Terrell	4	120	12	702	37	631
Lenox	--	---	--	---	2	48
Sts. Paul & Augustine	--	---	--	---	2	55
Dunbar High School	80	1,250	66	1,300	66	1,348
Totals	178	3,967	247	4,729	670	12,673

Following decentralization of District of Columbia Schools in 1974, Project staff assumed an additional dimension of service to the city. Members of the staffs of the six regions were invited to participate in an orientation to Career Education for purposes of preparation for dissemination of the program citywide. Support to the regions has become an integral part of the mission of the Project.

Supporting, publicizing and monitoring the work of Project staff are two community councils which work closely with the project. Working together, these units render a valuable service to Career Education.

III. EVALUATION DESIGN

The following information requirements for the evaluation of career education in the District of Columbia Schools are the result of an evaluation design conference held at Browne Junior High School with participants from IBEX, Inc. and from the project staff during the spring of 1975.

Information users

The following is a listing of information users as agreed upon at the design conference:

Project Director
Project Staff
D.C. Career Development Adminstration
U.S. Office of Education
Community
Board of Education
Local School Staffs
Superintendent
Associate Superintendent
Regional Superintendents

This list, in no way refers to any rank order of line and staff relationships, rather, the enumeration is based on the need for information about CEIC. Information is for those who make operational policy decisions about the project.

Information Domains

The following is a priority list of information domains for the CEIC evaluation. These domans are listed according to priorities set at the evaluation design conference mentioned earlier.

1. Student Outcomes

    a. economic awareness
    b. non-cognitive growth

2. Faculty(s) Involvement

   a. teacher and staff - counselor, librarians, etc., attitudes
   b. teacher practices
   c. materials utilization
   d. commitment
   e. leadership
   f. use of community resources
   g. inservice and staff development

3. Adminstrative Considerations

   a. cost and budget analysis
   b. model generalizability

Evaluation Constraints

The following constraints are agreed upon as part of the evaluation design:

a. a fixed price budget of $11,745.67

b. a career education student population of 200 students at each concerned grade level. Tests to be administered using a matrix sampling approach at each grade level.

c. no student should take more than one 30-minute scale.

d. teachers will complete one thirty-minute survey.

e. one week of school left to implement evaluation design.

THE EVALUATION CONCEPT

A close examination of the expanding literature on educational evaluation indicates a transfer of the focus of attention from philosophical discourses on the need and desirability of educational evaluation to a critical appraisal of the tools and methodologies available. This shift in emphasis has paralleled the realization that evaluation can be an aid to rational thought and action within the decision making process. In order to approach the study of educational evaluation in a systematic manner, we must conduct a more thorough examination of its components and elements than is generally found in the literature.

Evaluation is a continuous process, and involves the constant re-examination of programs, trends, policies, and tendencies so that rational decisions can be made between competing alternatives. Evaluation is not an end, but a means for making better use of the resources available; it provides the information required for guiding the future course of an enterprise. Since evaluation is future oriented, it becomes imperative that decision makers requiring information learn to identify these information needs.

Evaluation can be usefully defined as follows:

> Evaluation is the process of clarifying a set of decision needs and collecting, analyzing, and reporting information to alleviate those needs.

This definition includes several different elements. A short discussion of these elements will serve to clarify the meaning of the above definition and present some of the topics which will be expanded in later sections.

1. Evaluation is a Process...

Evaluation is a process, i.e., a continuous activity requiring an expenditure of resources in order to be sustained. Evaluation as a process should be distinguished from a "plan". A "plan" is a set of decision impacting on the future and can be developed through evaluation feedback or through some other method of decision making.

2. Of Clarifying...

The evaluation process seldom includes the definition of information needs. This is the province of management. The role of evaluation is to clarify these identified information needs in such manner that valid data can be secured to alleviate these management needs.

3. A set of Decision Needs...

Information needs seldom are singular in nature. More often, a decision maker requires information on a number of variables, many of which are interrelated. "A set of decision needs" then, refers to a systematically interrelated matrix of choices among alternatives.

4. And Collecting ...

The collection of information which will impact on the decision making process involves an economically selective approach. Rarely is no information available which will impact on a decision situation. Generally, there is an abundance of information, and the problem becomes one of maximizing the amount and quality of the information collected within fixed resource constraints.

5. Analyzing ...

Analysis involves the massaging of the collected information in such a way that the decision needs can be best alleviated. Just as the collection element involves a number of options and requires selectivity, so does the analysis element. More commonly, evaluation data is massaged too little rather than too much.

6. And Reporting Information ...

> All previous elements are academic exercises unless the results of the evaluation process can be communicated to the right decision makers in a timely, precise, and readily understandable format and language.

7. To alleviate Those Needs ...

> The alleviation of need implies that the preceding elements of the definition were adequately realized. As previously mentioned, evaluation is not an end in itself; the end, rather, is the provision of accurate information to decision makers. The decision makers solicit this information in the hope that an adequate knowledge base can be realized.

Information Based Evaluation

The strategy upon which this design document builds is called Information Based Evaluation (IBE)*. This strategy has been successfully implemented on some forty projects at both the state and local level over the past several years.

The concept of information utility is the overriding characteristic that differentiates "good" evaluation from "poor" evaluation and differentiates undisciplined data collection from information gathering. Judged by even modest standards of utility, educational research and evaluation has a pitifully poor record, and the unfortunate educational manager or policy maker operating within this void must sift through mountains of data for those kernels of desired information.

In the social sciences in general, and in education in particular, the mechanisms do not exist for supplying information to those who need it. The traditional evaluation mechanism has not added much to the

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* A Jackson Stenner, Information Based Evaluation Series Book 1: An Overview of Information Based Evaluation: A Design Procedure, Arlington, Virginia, IDEA, Inc., 1972.

meager research contribution. Theoretically, evaluation should be a suitable mechanism but it has suffered from growing pains and an obsession to separate itself clearly from the research model. The Information Based Evaluation Model, hopefully, suffers from no such obsessions, except perhaps that of adhering strictly to the concept of information utility.

Another contributing factor to the inadequacy of present day evaluations has been the relationship between evaluation and the performance objectives movement. The symbiotic growth these two concepts have enjoyed has served to reduce the full potential of educational evaluation. The crucial role performance objectives play in program management are obvious; however, the question arises as to what place objectives should have in evaluation. The Information Based Evaluation approach views program objectives as a focus of evaluation, but by no means the focus. More traditional approaches to evaluation have used performance objectives as the foundation for the planning and execution of evaluation activities. This procedure is considered inadequate for several reasons:

1. Basing evaluation on performance objectives restricts the focus of evaluation to intended outcomes, thus overlooking unintended outcomes which are potentially just as important.
2. Performance objectives provide a very inflexible basis for evaluation in that they are seldom changed during the program year, and thus, information needs (which are fluid) cannot be adequately addressed.
3. Even if information on the attainment of all performance objectives is provided, important information is invariably ignored because objectives are not developed with information needs in mind, but, rather, are developed as guideposts for program management.

4. Objectives based evaluation often views each objective as a unique area of focus and thus, important relationships are often overlooked.

If program objectives are inadequate as a foundation for evaluation, what are the alternatives, How do we define the parameters of evaluation, i.e., what are the reference points? In objectives based evaluation, the reference points are the program objectives. In Information Based Evaluation the reference points become the information users for the program and the information domains (needs). Capitalizing on these reference points, a technique called domain analysis can be used to define and focus the direction of the evaluation.

Information Based Evaluation should not be considered as "objective-free" evaluation. Information Based Evaluation recognizes the importance of program objectives, but only to the extent to which feedback on the objectives is considered important to information users. The overriding consideration is the type of questions about which relevant individuals desire answers. Priorities are established in both the information domain category (e.g., student cognitive growth) and the information user category (e.g., local superintendent) and the evaluation resources are expended to meet these identified priorities. An additional check on the adequacy of evaluation information is the extent to which the information leads to action. If no relationship exists between information and action, then the adequacy and/or quality of the evaluation effort is in doubt.

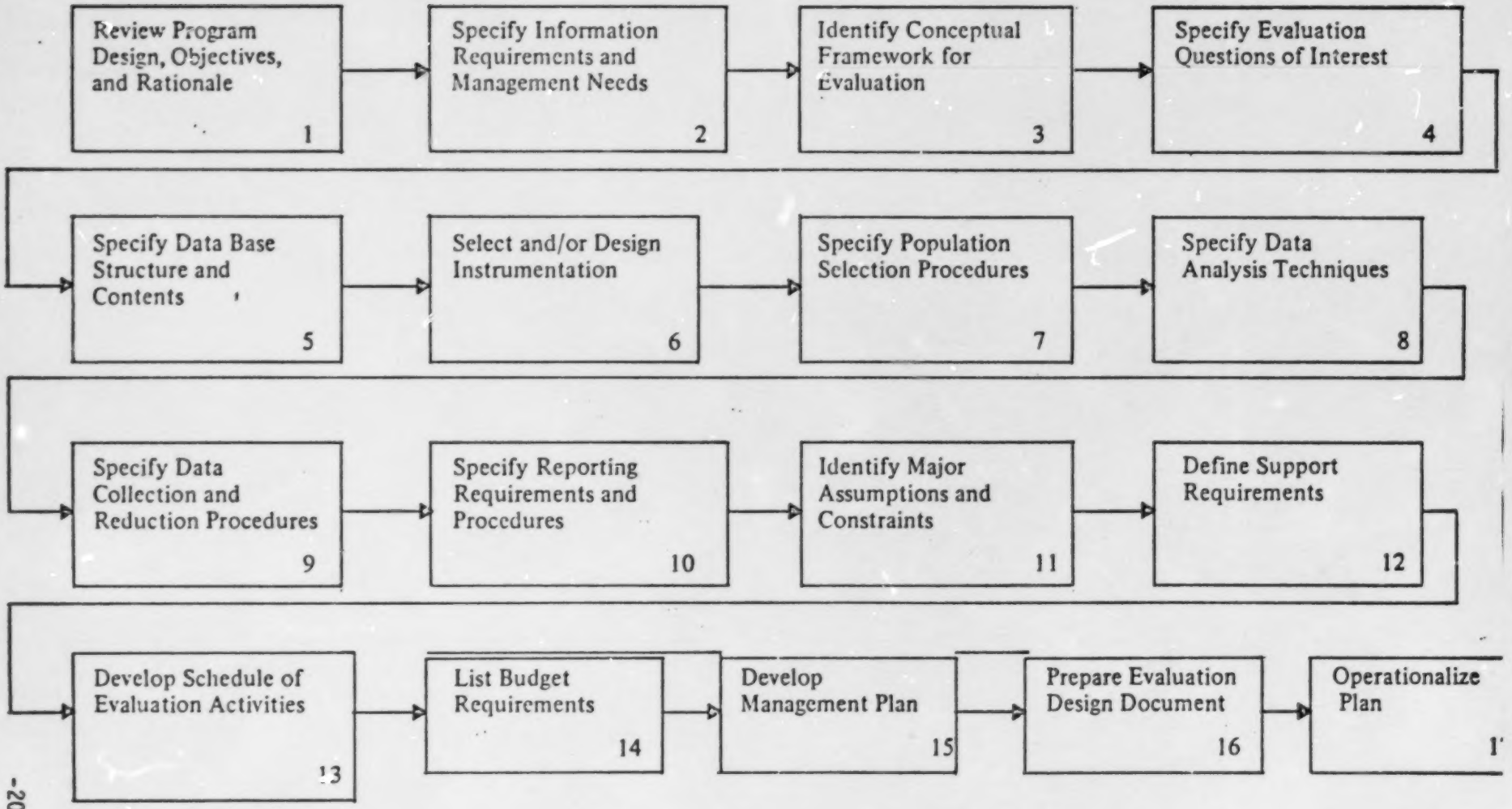
In polling the various information users, the evaluation team can often develop evaluation questions that relate to "unintended outcomes" or "shadow benefits". These questions occur because all information users

are probably not supportive of the program procedures and/or objectives; thus, their information needs will highlight aspects of the program that would not receive attention in an objectives based evaluation effort. Program developers and program staff generally have a highly developed commitment for the program and are myopic in viewing the outcomes of the program. The possibility that the program may cause some negative side effects is very difficult for them to comprehend, let alone accept. However, individuals or factions that have been against the program from the start are generally more than capable and willing to identify potential weaknesses and unintended outcomes. Therefore, in serving each information user, the evaluation team can gain a balanced view of the program.

Information Based Evaluation recognizes that an evaluation must be dynamic if it is to be responsive. Program objectives rarely change during the project year, thus the objectives based evaluation is static and methodical in responding to the information requirements. Information Based Evaluation accepts the fact that information needs are fluid, and new questions are posed throughout the program cycle. An IBE Procedural Flow Chart can be found on page 20 .

Information Based Evaluation rests on three major components: information users, information domains, and evaluation questions. At several evaluation design conferences with D.C. Career Education staff, these three components were carefully viewed and given priority rank in the Career Education evaluation. The design conference participants were the Career Education staff, principals, and central administration.

FLOW CHART FOR DEVELOPING AN EVALUATION DESIGN


Review Program Design, Objectives, and Rationale 1
Specify Information Requirements and Management Needs 2
Identify Conceptual Framework for Evaluation 3
Specify Evaluation Questions of Interest 4
Specify Data Base Structure and Contents 5
Select and/or Design Instrumentation 6
Specify Population Selection Procedures 7
Specify Data Analysis Techniques 8
Specify Data Collection and Reduction Procedures 9
Specify Reporting Requirements and Procedures 10
Identify Major Assumptions and Constraints 11
Define Support Requirements 12
Develop Schedule of Evaluation Activities 13
List Budget Requirements 14
Develop Management Plan 15
Prepare Evaluation Design Document 16
Operationalize Plan 1

SAMPLING PLAN

The sampling plan implemented in the Washington , D.C. career education evaluation was based on the enrollment in the Grade 3, 6, 9, 11. This was a continuation of the Sampling Plan used in the 1974-75 evaluation.

Matrix Sampling

All students did not take all instruments. Time and funds were two important constraints that must be considered. Using matrix sampling for random selection, for grades 3, 6, 9, 11, each class took one of the instruments. For planning purposes, a class was considered to be 30 students and one teacher. In past years' evaluations, students were asked to respond to at least two instruments per grade level.

Each grade level, 3, 6, 9, 11 was plotted as shown in Figure 1 to assure that all students were involved, but that no students took more than one half hour in testing. (For teachers, total group was enumerated with each designated instrument).

FIGURE I

Exemplary Effort Career Education

District of Columbia

Example of Matrix Sampling Approach for Grade

Test / Grade 3 School/Teacher	SOS	OAS
School A: Teacher 1	X	
Teacher 2		X
Teacher 3	X	
School B: Teacher 4		X
Teacher 5	X	
Teacher 6		X

STUDY POPULATION FOR

CAREER DEVELOPMENT EXEMPLARY PROJECT

GRADE 3	Sample
Amidon	26
Bundy	9
Cleveland	24
Drew	27
Lennox	25
Total: Grade 3	111

GRADE 6	Sample
Goding	51
Lennox	18
Seaton	25
Total: Grade 6	94

GRADE 9	
Terrell Jr. High	100
Stuart Jr.High	50
Jefferson Jr. High	60
Total: Grade 9	210

CAREER DEVELOPMENT EXEMPLARY PROJECT
(CDEP)

Dunbar High School Data
Grades 10-12

Number of Teachers/ Counselors	Enrollment of Students by Grade						
	10		11		12		TOTAL
(69 + 3)	Boys	Girls	Boys	Girls	Boys	Girls	
	263	234	183	253	132	193	1231
TOTAL: 72	470		436		325		1231

EVALUATION QUESTIONS

The following questions are essentially the ones that were asked and answered in the 1974-75 evaluation. There was little time to hold a design conference which could have developed new questions or reformulated old ones.

Student Outcomes

1. Do career education students, by grade level, show more economic awareness than non-career education students in the following areas;

   a. occupational awareness

   b. relationship of jobs to society

   c. dignity of all work

2. Do career education students at each grade level, show more positive affective behavior than non-career education students in the following areas:

   self acceptance
   self security
   social maturity
   social confidence
   school affiliation
   teacher affiliation
   peer affiliation

Faculty Involvement

3. Do faculties involved in career education show positive attitudes toward its concepts and practices?

4. What career education practices (including use of community resources) and materials are involved teachers using? What is the level of use?

5. What is the level of commitment of involved faculties? What is the evidence?

6. Is career education developing a local leadership pool?

7. What are the components of the inservice education program? Do the teachers view it as effective?

Central Administrative Attitudes

8. What are the attitudes of the central adminstrative staff toward the career education programs?

Career Education Community Council

9. What are attitudes of the Parent Council toward career education?

10. What is their level of involvement in the program?

Administrative Considerations

11. What are continuing costs of a career education project?

12. What elements of the present model are ready for generalization at the close of the 1975 school year?

Outcome Question/Treatment Group Matrix

Table I presents the Outcome/Treatment Group Matrix required in the Guidelines. Each step necessary for developing the Matrix was carefully followed. Since the steps to complete the matrix were based on working notes between the evaluator and the EECE staff, they are not presented.

OUTCOME QUESTION/TREATMENT GROUP MATRIX

Table 1 presents the Outcome Question/Treatment Group Matrix required in the Guidelines. Each step necessary for developing the Matrix was carefully followed. Since the steps to complete the Matrix were based on working notes between the evaluator and the EECE staff, they are not presented.

TABLE 1

Student Outcome Question/Treatment Group Matrix

	Elementary 3-6	Junior High 9	High School 11
Increased Self Awareness I.A. Do students display a more positive attitude toward themselves	X	X	X
Increased Basic Skills II.A. Have students increased their level of generally useful decision-making skills?		X	X
B. Have students increased their level of generally useful interpersonal skills?	X	X	X
Awareness of Work Values III. A. Do students possess more positive attitudes toward paid and unpaid work?	X	X	X
Increased Work Awareness IV. A. Have students increased their knowledge of the impact of social and technological change in paid and unpaid work?		X	X
Increased Decision Making Skills V. A. Have students increased their knowledge of the steps to be taken and the factors to be considered in career planning?		X	X
B. Have students increased their active involvement in career decision-making?			X
Improved work Habits VI.A. Do students have a more positive attitude toward responsibility for their own behavior and accomplishment of self-imposed work tasks?	X	X	X

TABLE 1-A

EVALUATION DESIGN WORKSHEET

COLUMN 1. Student Outcome Area	COLUMN 2. Related Evaluation Questions	COLUMN 3. Design	COLUMN 4. Specify Data Source(s)	COLUMN 5. Instrumentation	COLUMN 6. Sampling	COLUMN 7. Data Analysis
Do students display a more positive attitude toward themselves?	Outcome: Question I.A Treatment: See Matrix Relational:	Post Only (May,1976) NA	Students NA	Follow-up Survey SOS NA	By Grade, By Class & Matrix NA	Descriptive
Have students increased their level of generally useful interpersonal skills?	Outcome: QuestionII B Treatment: Relational:	Longitudinal Comparison Post(May'76) NA	Students NA	SOS NA	Matrix by Grade & Class NA	Descriptive

TABLE 1-A

EVALUATION DESIGN WORKSHEET

COLUMN 1. Student Outcome Area	COLUMN 2. Related Evaluation Questions	COLUMN 3. Design	COLUMN 4. Specify Data Source(s)	COLUMN 5. Instrumentation	COLUMN 6. Sampling	COLUMN 7. Data Analysis
Do students possess more positive attitudes toward paid and unpaid work?	Outcome: Question IIIA Treatment: Relational:	Longitudinal Comparison Post (May'76)	Students	OAS CADI	Matrix by Grade & Class	Descriptive
Have students increased their knowledge of the impact of social and technological change in paid and unpaid work?	Outcome: Question IV.A Treatment: See Matrix Relational:	Longitudinal Comparison Post (May'76) NA	Students NA	CADI OAS NA	Matrix by Grade & Class NA	Descriptive

TABLE 1-A

EVALUATION DESIGN WORKSHEET

COLUMN 1. Student Outcome Area	COLUMN 2. Related Evaluation Questions	COLUMN 3. Design	COLUMN 4. Specify Data Source(s)	COLUMN 5. Instrumentation	COLUMN 6. Sampling	COLUMN 7. Data Analysis
Have students increased their knowledge of the steps to be taken and the factors to be considered in career planning?	Outcome: Question V.A Treatment: See Matrix Relational:	Lognitudinal Comparison Post (May'76) NA	Students NA	CADI NA	Matrix by Grade & Class NA	Descriptive
Have students increased their active involvement in career decisionmaking?	Outcome: Question V.B Treatment: See Matrix Relational:	Longitudinal Comparison Post (May'76) NA	Students NA	CADI DMS NA	Matrix by Grades 9+11 & Class NA	Descriptive

TABLE 1-A

EVALUATION DESIGN WORKSHEET

COLUMN 1. Student Outcome Area	COLUMN 2. Related Evaluation Questions	COLUMN 3. Design	COLUMN 4. Specify Data Source(s)	COLUMN 5. Instrumentation	COLUMN 6. Sampling	COLUMN 7. Data Analysis
Do students have a more positive attitude toward responsibility for their own behavior and accomplishment of self-imposed work tasks?	Outcome: Question VI.A Treatment: See Matrix Relational:	Longitudinal Comparison NA	Students NA	SOS NA	Matrix by Grade & Class NA	Descriptive
Have students increased their level of generally usedful decision-making skills?	Outcome: Question II.A Treatment: Relational:	Longitudinal Comparison	Students	DMS	Matrix by Grade & Class	Descriptive

DATA BASE ELEMENTS

Utilizing the evaluation questions of interest as basic information, necessary data elements are identified in order to respond to the questions. A data element is some type or piece of information that is to be used in responding to a question. In order to present the following data files, each question was "mapped" or analyzed to determine which data elements were needed. Three files have been identified; the Student File which identifies the data elements necessary on each student in the study, the Staff File which identifies the data necessary on each teacher or other staff in the study, and the Process File which identifies the remaining necessary data elements.

These data files act as master control for obtaining and reducing the volume of data that is necessary to complete the overall evaluation. Upon completion and approval of the data file, data formats are designed to indicate the process and procedure necessary to collect and record the data called for. The data formats were presented in the Design Document in early May 1975.

STUDENT DATA FILE

Number	Data Element Entry
1	School
2	Grade
3	Sex
4	Self Observation Scales Primary Intermediate Junior & Senior High
5	Occupation Awareness Survey Primary Intermediate
6	Career Awareness Development Inventory
7	Career Maturity Inventory
8	Decision Making Scale

PROCESS FILE

Number	Data Element Entry
1	Proposed Budget by Components
2	Expended Budget by Components
3	Annual Budget
4	Records of Inservice Meetings
5	Inservice Education Reports

STAFF DATA FILE

Number	Data Element Entry
1	Name
2	Social Security Number
3	School
4	Grade
5	Career Education Teacher Practices
6	Career Education Coordinator Survey

INSTRUMENTATION

In (IBE) Information Based Evaluation, an evaluation instrument is any procedure by which information is gathered and recorded. An evaluation instrument may be concerned with measurement or only with data collection. Some instruments are commercially available and others were developed by the evaluation team and the CEIC staff. This is especially true for instrumentation that is basically concerned with CEIC as an entity as opposed to career dev opment generally. The following list presents the instruments that IBEX recommended for use in this evaluation. A brief description is presented for each instrument.

Instrument Summary

1. SELF OBSERVATION SCALES (Primary, Intermediate and Junior and Senior High) (SOS)

   A measure of student self concept at the primary (K-3) and intermediate (4-6); junior high (7-9) senior high (10-12) levels. Subscales include: Self Acceptance, School Affiliation, Social Maturity, Self Security, and Achievement Motivation. The intermediate level adds Teacher Affiliation, Social Confidence and Peer Affilitiation, while the junior and senior high level adds a Self Assertion subscale.

2. OCCUPATION AWARENESS SURVEY (Primary and Intermediate) (OAS)

   An instrument designed by IBEX is used to determine if the student is aware of career possibilites and if he sees dignity in all work. Score on items and item distribution rather than on students or class.

3. CAREER AWARENESS INVENTORY (Elementary and Secondary) (CADI)

An instrument developed by IBEX to determine if students can relate social and academic skills learned in school to occupational requirements. Subscales include: social skills, academic skills and aspiration.

4. DECISION MAKING SCALE (DMS)

An instrument developed by IBEX to asses the decision making skills of secondary school students

5. CAREER EDUCATION TEACHER PRACTICE SURVEY (CETPS)

A teacher-completed scale to determine level of use by teacher of certain suggested career education practices.

6. CAREER EDUCATION COORDINATOR'S SURVEY

An IBEX-developed instrument which surveys coordinators.

DATA ANALYSIS

Data will be collected and analyzed in accordance with the previously stated project questions and instrumentation. The Student File, Staff File and Process File will be the primary data collection forms. After the data is collected, it will be keypunched and loaded on tape for analysis.

In answering the evaluation questions, a number of data analysis techniques will be used. For a substantial number of the questions, simple descriptive statistics will suffice; however, some of the more complex questions will require more complex analysis techniques. Several of these more complex techniques are briefly described below:[1]

1. The Analysis of Variance

   When two or more groups or samples are available, the analysis of variance is a model used to test for differences, within specified limits of probability, between the means of those groups. The procedure enables one to analyze variances in such a manner that conclusions can be drawn about means. In the one-way situation (only one independent variable), the procedure is merely an extension of the t-test to situations where there are more than two groups.

   Higher order analysis of variance is used to ascertain, within specified limits of probability, the effects of two or more independent variables on a dependent variable. Utilizing higher order analysis of variance, the researchers can test main effects and interaction effects. In higher order analysis of variance, the researcher must concern himself with whether he is dealing with a fixed, mixed, or random model, since the type of model used will, in the presence of a significant interaction effect, make a difference in the error term used.

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[1] These descriptions are taken from A. Jackson Stenner and William J. Webster, Educational Program Audit Handbook, IDEA, Arlington, Virginia, 1971.

2. The Analysis of Covariance

When two or more groups or samples are available, the analysis of covariance is a model used to test for differences, within specified levels of probability, among the means of those groups, after initial compensation for difference among groups with respect to one or more control variables. Analysis of covariance is not a method to adjust for lack of random sampling; it is rather a technique that can be used to increase the precision of one's experiment if the control variable(s) selected is highly linearly correlated with the dependent variable.

Analysis of covariance can be used in simple-classification or multiple-classification forms and, when the assumptions are met, is a more powerful technique than analysis of variance because it will provide a reduced error team.

The previously discussed analysis of variance and analysis of covariance models, on the other hand, are generally presented as methods for analyzing controlled experiments in which different groups are subjected to different treatments or treatment configurations. Conclusions are drawn, within specified limits of probability, in terms of the significance of differences in sets of means or mean differences.

3. Factor Analysis

Factor analysis is the term used to describe any one of a number of methods for analyzing the intercorrelations among a set of variables for the purpose of reducing the variables to as few dimensions as can be fruitfully used in order to describe the total set of variables under analysis. These techniques attempt to account for intercorrelations among variables in terms of underlying factors and to reveal the proportion of variation in each of the original measures associated with each hypothetical factor.

IBEX has a full range of computer programs and packages that are applicable to the CEIC evaluation. Thus, if further analyses are needed for any data or if other techniques need to be applied to the information on hand, it can be done.

REPORT REQUIREMENTS

	ITEM	NUMBER OF COPIES	TIME AT WHICH REQUIRED	RESPONSIBLE PARTY
1.	Treatment Group - Outcome Area Table	3	1st month	Evaluator
2.	Evaluation Design Worksheet	3	1st month	Evaluator
3.	Outcome Question/Treatment Group Matrix	3	1st month	Evaluator
4.	A complete evaluation plan, including specification of evaluation design, data analysis plan, data collection plan, outline of proposed evaluation report, and a PERT, GANTT, or other chart of critical dates for the process.	4	1st month	Evaluator
5.	Annual/Final Evaluation Report	108	July 31, 1975	

IV. EVALUATION RESULTS

This section is organized around six major information evaluation areas of interest. These domains are: (1) student self concept, (2) student relationship with the world of work, (3) student attitudes toward career development, (4) student decisionmaking skills, (5) teacher attitudes, and (6) coordinator perceptions.

Self Observation Scales

Student Self Concept

One objective of the Exemplary Effort in Career Education Project at the elementary level is "to enable students to develop a more positive self concept and greater understanding of self". The following explanation is presented as background to understanding the results presented later in this document.

Between the ages of five and twelve, self concept begins to crystallize. During this period (termed the latency period by many authors), the child matures considerably in the physical, cognitive and affective areas. He confronts his environment with an increasingly stable set of feelings, attitudes and behaviors which are based, to a large extent, on his self concept which is, likewise, stabilizing. As the child becomes older, he becomes more sure of what he likes and dislikes, who he likes and dislikes,

what he enjoys doing and what he dislikes doing, how he sees his future and what he will be doing in this future. He begins to plan, and his aspirations and hopes tend to be consistent with the way he values himself, which, in turn, is dictated in large part by how he perceives others value him.

Although the early school years are characterized by a crystallization of self, the child also begins to differentiate. The self concept of the five-year-old is a relatively simple construct. The five-year-old views most things as a dichotomy: people are good or bad, food is good or bad, places are happy or unhappy places to be, other children are friendly or mean. As the six-year-old enters first grade, new demands are placed on him. He is expected to interact with unfamiliar children and authority figures and, to a great extent, his well being is determined by how successfully he negotiates these new demands. It is these early years that have a truly profound impact on the child's self concept development. Never before has he been consistently, objectively and sometimes coldly, judged by peers and adults. He is unable to separate himself from his actions so that reprimands and criticism often become viewed as direct threats to self. With this background information we now turn to the correlates of a positive and negative self concept, respectively.

The Positive Self Concept*

Children with positive self concepts are, first of all, confident about their ability to meet everyday problems and demands. They are confident about their relationships with other people and take pleasure in mutual interdependence, in needing others, and in being needed. Autonomy and interdependence are beginning to take shape. Children with positive self concepts view themselves as desirable and valuable contributors to the well being of those around them. They see themselves as deserving of attention and love, and feel they are capable of reciprocating. They compare themselves favorably with their peers and feel that authority figures are supportive and interested in them as individuals. These children tend to be comparatively independent and reliable. These qualities may stem from their feelings of sufficiency and adequacy in new and challenging situations. They are relatively free from anxiety, nervousness, excessive worry, tiredness and loneliness. They report being happy with the way they look and would not change their appearance if they could.

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* The profiles for a "positive" and "negative" self concept are drawn from the results of the national validation and norming of the Self Observation Scales (SOS).

Children with a positive view of themselves enjoy interacting with their peers and see themselves as on a par with their peers in most situations, while occasionally professing superiority in certain areas. They recognize the social consequences of certain "asocial" actions and see the benefits of give-and-take in social interactions. These children are able to admit that they make mistakes and that they sometimes hurt other people, but they apparently do not view these admissions as major threats to self.

Behaviorally, these children are seldom designated as problem children. They usually appear comparatively calm, keep their hands to themselves and, although they are frequently competitive, they express aggression when external considerations warrant aggressive behavior. They express dissatisfaction with their own poor performances but rarely make self deprecating remarks. They react positively to constructive criticism, can accept praise well, and derive obvious pleasure from a job well done.

Scholastically, children with positive self concepts tend to achieve above expectation in reading and mathematics. They tend to attain higher scores on standardized achievement tests than would be predicted from ability tests. These children are positive toward school and view it as a happy, worthwhile place to be.

The Negative Self Concept

Children with negative self concepts are insecure and pessimistic about their ability to meet everyday problems and demands and they are unsure about their relationships with others. They often tend to be either overly dependent and withdrawn or overly aggressive with apparently minimal overt needs for social interaction and, in each case, growth toward autonomy appears stunted

and retarded. These children view themselves as undesirable and, through their often inappropriate behavior (which is, although inappropriate, usually quite consistent with the way the children feel about themselves), they are regularly reinforced in these feelings.* They report not being needed by other people and do not feel that others care about them as individuals. They compare themselves unfavorably with their peers and frequently report being inferior to their peers in age-appropriate activities. Authority figures represent a threat to children with poor self concepts.

These children are threatened in social interactions and prefer to play with younger children. They report a desire to dominate in peer-oriented activities, i.e., always wanting to be first or always wanting to be the leader, and yet, would prefer to play alone if given the choice. They tend to be quitters and are satisfied with poor performance (again, poor performance is consistent with the way these children view themselves). These children find it difficult to admit to even common mistakes and are quite insensitive to other people's feelings.

Behaviorally, these children are frequently labeled as problem children. The acting out, aggressive, verbally disruptive child has a markedly lower self concept than does the "healthy" child. Likewise, the insecure, withdrawn, quiet child also has a negative self concept, but his inadequacies are manifested differently from the aggressive child. These children respond negatively to criticism and, surprisingly, they often respond inappropriately or even negatively to praise because positive feelings are inconsistent with the way these children feel about themselves.

* Modifying the truism from the financial world that "the rich get richer and the poor get poorer, we can say that children with strong self concepts get positive reinforcement and thus get stronger, while those with weak self concepts get negatively reinforced and thus, get weaker.

Scholastically, children with poor self concepts tend to be below average in reading and mathematics. They tend to obtain lower scores on standardized achievement tests than would be predicted from ability tests. These children are negative toward school and view it as an unhappy place to be.

SOS SCALE DESCRIPTIONS

As a measure of children's self concepts, the Self Observation Scales (SOS) were used in this evaluation. The SOS is a direct, self report, group administered instrument comprised of fifty items at the primary level (K-3) and sixty items at the intermediate level (4-6).

The primary level of the SOS measures five dimensions of children's self concept. Each scale is labeled in a positive manner with high scores being most characteristic of the scale name.

The scales are as follows:

SCALE I - SELF ACCEPTANCE

Children with high scores view themselves positively and attribute to themselves qualities of happiness, importance, and general competence. They see themselves as being valued by peers, family and teachers. Children with low scores see themselves as unhappy, lacking in general competence and of little importance to others.

SCALE II - SOCIAL MATURITY

Children with high scores on this cale know how they are supposed to think and feel in a variety of social situations. They have learned the importance of such notions as "fair play", "sharing", "perseverance", "helpfulness", and "generosity". Children with low scores on this scale have not learned these notions and are likely to evidence behaviors that most adults would characterize as selfish, inconsiderate or immature.

SCALE III - SCHOOL AFFILIATION

Children with high scores view school as a positive influence in their lives. They enjoy going to school, and they enjoy the activities associated with school. Children with low scores view school as an unhappy place to be. They do not enjoy most school related activities and are negative about the importance of school in their lives.

SCALE IV - SELF SECURITY

Children with high scores report a high level of emotional confidence or stability. They feel that they are in reasonable control of the factors that affect their lives and spend little time worrying over possible troubles. Children with low scores on this scale worry a great deal. They are concerned that something bad may happen and report feeling of nervousness.

SCALE V - TEACHER AFFILIATION

Children with high scores on this scale like their teachers. They see the teacher as helpful, attentive, understanding and generous. Children with low scores on this scale see the teacher as arbitrary, inconsiderate of children, and/or a source of emotional pain.

SCALE IV - PEER AFFILIATION

Children with high scores on this scale consider their relationships with other children to be both of high quality and of considerable importance to them. They see themselves as approved of and valued by their peers. They like to be with other children. Children with low scores do not see their peer relationships as an asset. They see other children as unfriendly, they have few friends, and do not accept the responsbilities of friendship easily.

The Junior High level of the Self Observation Scales is designed for use at grades 7-9. Form A measures nine dimensions of students' affective behavior, while Form B measures the same dimensions, less the Family Affiliation Scale. Each scale is labeled in a positive manner with high scores being most characteristic of the label.

SCALE I - SELF ASSERTION

Students with high scores view themselves as possessing leadership qualities and as being respected by others for these qualities. The emphasis on this scale is on how students believe others view them. Students with low scores see themselves as lacking leadership ability and assertiveness. Three items highly related to this scale are: Other students look to me for leadership; Other students look to me for ideas; In discussions with my friends, my point of view usually wins.

SCALE II - SELF ACCEPTANCE

Students with high scores view themselves positively and attribute to themselves qualities of basic competence, self satisfaction and happiness. They see themselves as being good at a lot of activities and as being confident about their future success. Students with low scores are unsatisfied with their performance and capabilities and are unsure of their futures. Three items highly related to this scale are: I do a lot of things well; I think I will be successful in life; When I look in the mirror, I like what I see.

SCALE III - SELF SECURITY

Students with high scores report a high level of emotional confidence or stability. They report being in control of factors affecting their lives and worry very little about either specific or non-specific fears. Students with low scores on this scale worry a great deal. They report nervousness about non-specific performance expectations and often feel that they worry more now than in the past. Three items highly related to this scale are: I often find myself worrying about something; At times I lose sleep over worry; I worry about losing my friends.

SCALE IV - SOCIAL MATURITY

Students with high scores on this scale know how they are supposed to think and feel in a variety of social situations. They are comfortable around younger children and show empathy in their social relations. They believe in saying what they feel and understand the importance of listening to others. Students with low scores on this scale are socially self centered, lack responsiveness to other people's feelings and are reticent to express their own feelings. Three items highly related to this scale are: When I feel like it, I cry; Younger kids usually bore me; Most of the time I feel sorry for someone who is hurt.

SCALE V - SOCIAL CONFIDENCE

Students with high scores on this scale feel confident of their ability to relate in social situations. They feel confident about their ability to make and keep friends and believe that other people value their friendship. Students with low scores have difficulty making friends and lack confidence in social situations. Three items highly related to this scale are: People who are like me don't have a good chance to be successful; Most of my friends don't care what I think; If people knew what I am really like, they would steer clear of me.

SCALE VI - SCHOOL AFFILIATION

Students with high scores view school positively, enjoy going to school and enjoy the activities associated with school. Students scoring low on this scale see school as a "hassle" that keeps them from doing what they want to do. Three items highly related to this scale are: I like to stay home from school; This school is like a jail; School frequently keeps me from doing what I want to do.

SCALE VII - TEACHER AFFILIATION

Students with high scores on this scale like their teachers. They see the teacher as helpful, attentive, understanding and generous. Students with low scores see the teacher as arbitrary, inconsiderate of children and/or as a source of emotional pain. Three items highly related to this scale are: My teachers like to help me; When I do something wrong, my teachers correct me without hurting my feelings; My teachers expect too much of me.

SCALE VIII - PEER AFFILIATION

Students with high scores on this scale consider their relationships with other students to be both of high quality and of considerable importance to them. They see themselves as approved of and valued by their peers. They like to be with other students. Students with low scores do not see their peer relationships as an asset. They see other students as unfriendly, they have few friends, and do not accept the responsibilities of friendship easily. Three items highly related to this scale are: I make friends easily; Other students are usually fair to me; I can count on my friends when I am in trouble.

SCALE IX - FAMILY AFFILIATION

Students with high scores on this scale report a positive relationship with their parents and family. They see their parents as helping in time of need and as being understanding. Students with low scores don't see home as a place to go when troubles begin. They do not feel trusted by their family and, likewise, do not feel that they treat their family as well as they should. Three items highly related to this scale are: My parents usually understand my problems; My parents do all they can for me; I treat my parents as well as I should.

The Senior Level of the Self Observation Scales is designed for use at grades 10-12, and measures the same nine dimensions of students' affective behavior as does the Junior Level.

Scoring of the SOS is based on national norms. For each scale, a child receives a standard score (T score), representing a distribution with a mean of 50 and a standard deviation of 10. National percentile and stanine equivalents of this standard score also are provided. Responses to individual items are not given.

The Primary, Intermediate, and Junior and Senior high levels of the SOS were given to a student sample at grades 3, 6, 9, and 11, respectively. during the last week of May and the first week of June 1976. The results of the administration were somewhat erratic. Grades 3, 6, and 11 returned completed instruments. Grade 9 returned instruments which were not completed and which made assessment of that grade level on self concept impossible for the 1975-76 school year.

The results of the SOS for grade three, Table I Appendix A, indicate that:

- Third Grade Career Education students maintain essentially the same pattern of results as third grade students in the previous years have demonstrated.

- Third Grade Career Education students for 1975-76 scored essentially the same on Self Acceptance as third graders did the previous two years. Self Acceptance for all three years is slightly below the National norm group.

- Third Grade Career Education students achieved lower on Social Maturity than the norm.

- Third grade Career Education students achieved higher scores than the norm group on School Affiliation.

- Third grade Career Education students achieved higher scores than the norm group on Self Security and showed a positive gain on this scale over the previous two years.

The results of the intermediate scores of the SOS, grade 6, are presented in Appendix A, Table 2. An examination of these results for the years 1973 through 1976 indicates:

- Sixth grade students showed a marked increase in Self Acceptance over the previous two years. They are at least one half standard deviation above the mean.
- Sixth grade students showed an increase in Social Maturity over the results for 1974-75.
- Sixth grade students showed an increase in School Affiliation over the previous two years' results.
- Sixth grade students demonstrated a drop in Self Security over the three year period for which this scale was measured.
- Sixth grade students showed an increase in Social Confidence, Peer Affiliation and Teacher Affiliation over the previous two years.

The results of the Junior High Self Observation Scales, Table 3, are presented for information purposes only. The reader will note that only results for 1974-75 are presented; no completed instrumentation was received by the evaluators to present results for this year. Based on the pattern established by grades 3 and 6 over the three years of the program, the evaluator feels confident that the following pattern could have occurred had results been available. In relation to the other scales on the instrument:

- Ninth grade students would have scored higher on Self Assertion, Social Confidence, Family Affiliation, Peer Affiliation, Teacher Affiliation, and School Affiliation than on Self Security, Self Acceptance, or Social Maturity.

- While absolute scores cannot be reported with any certainty, the evaluator feels certain that the relative pattern reported above would have obtained.

The results of the eleventh grade administration of the SOS are reported in Table 4. The instrument was not available in 1973-74; in 1974-75 the sample size was very small and the 1975-76 results, based on a small sample size, are reported for information purposes only.

- Eleventh grade students were higher than the norm group on School Affiliation, Self Security, Teacher Affiliation and slightly higher than the norm group on Self Assertion.

- Eleventh grade students were lower on Self Acceptance, Social Confidence and Peer Affiliation than the norm group.

STUDENT RELATIONSHIP WITH THE WORLD OF WORK

One of the evaluation questions asks, "How do project students perceive the world of work and their relationship to it"?. The instrument used to assess this area for this year, as in the past two years, was the Occupation Awareness Survey (OAS).

The Occupation Awareness Survey

The Occupation Awareness Survery is an instrument designed by the IBEX during the Summer and Fall of 1973. It was used experimentally in three pre-test situations during that Fall. It was slightly modified after the Fall administration, and a third level added so that there are primary, elementary and secondary levels now available.

At the primary level, students are asked to select 10 want ads from 24 which they would respond to if they were seeking employment; at the elementary level students selected 10 of 43; at the secondary level, 10 of 50. The OAS does not provide scores on students; rather, it provides a score for jobs, called Job Awareness Quotient. Each job is "scored" by normalizing the data using the following formula:

$$JAQ = \frac{10}{\text{N Of Ads}} \times 100.$$

Thus, at each level, a job score of 100 is anticipated, assuming equal distribution or popularity among respondents. It is helpful to view these scores in a way similar to the traditional way we have viewed the IQ score. Scores in the 90-110 range are normal. Scores in the 75-89 range indicate some low normal acceptance of a particular occupation. Scores below 75 indicate a rejection by students. On the other hand, scores above 125 indicate a highly popular occupation.

Interpretation

As an aid to the interpretation of the results of the OAS, the jobs listed on each level of the instrument were broken down into arbitrary categories. The Job Awareness Quotient for within each category was summed up and an average JAQ for that category arrived at.

The criteria, used to place specific jobs in a category, while somewhat arbitrary, consisted of the following parameters:

1. Educational Requirements
2. Level of Responsibility
3. Level of Personal Initiative Required for Job
4. Status and Derived Pay.

It should be pointed out very strongly at this point that the categories in which specific jobs were placed suffer strongly from evaluator bias on the aformentioned categories. While certain job placements within categories can and will have strong exception taken to placement; the majority of classifications are as accurate as the Evaluator could make them. Plans for the use of this instrument in any subsequent evaluation will include the development of local program-specific career categories.

For the Primary and Elementary OAS the jobs by category were:

(1) Unskilled

Sanitation Worker
Factory Worker
Farm Worker
House Cleaner
School Custodian
Usher
Cook/McDonald's

(2) Trade

Supermarked Cashier
Switchboard Operator
Secretary
Bookkeeper
Airline Ticket Sales
Park Guide
Florist
Child Care
Stock Clerk
Taxi Driver
Brick Mason
Plumber
Printer
House-to-House Salesman
Insurance Clerk
Sales Clerk

(3) Technical

Game Warden
Police Cadet
Dental Assistant
Law Aide
Medical Assistant
Photographer
Radio Announcer
Auto Mechanic
Truck Driver

(4) Semi Professional

Fashion Designer
Writer/Motor Trend
Manager (Travel Agency)
Teacher
Actor/Actress

(5) Professional

Hotel Manager
Minister
Editor
Accountant
Airline Pilot
Doctor

For the Secondary OAS the jobs and categories were:

(1) Unskilled

Factory Worker
Farm Worker
House Cleaner
Sanitation Worker
Laborer
Telegram Deliverer
Ditch Digger
Dishwasher
Waitress

(2) Trade

Florist
Child Care
Airline Ticket Sales
Secretary
Bookeeper (small office)
Clerk (general)
Supermarket Cashier
Secretary (School)
Play Ground Director
Clerk (Accounting)
Taxi Driver
Brick Mason
Printer
Plasterer
Cook

(3) Technical

Radio Announcer
Law Aide
Dental Assistant
Legal Secretary
Bookeeper (Large firm)
Computer Programmer
Laboratory Aide
Game Warden
Salesperson (outdoor)
Salesperson (indoor)
Commercial Artist

(4) Semi Professional

Actor/Actress
Manager (Travel Agency)
Teacher
Motel Manager
Chef
Department Store Buyer
Art Director
Landscape Architect
Fashion Designer

(5) Professional

Economic Analyst
Public Relations
College President
Personnel Director

The results of the primary OAS for the third grade, Appendix A, Table 5, indicate that:

- Third grade career education students seem to be selecting more toward the "unskilled" category than they have in the previous years.
- Third grade career education students seem to continue to express a strong preference for jobs and careers in the trade category; primarily service occupations.
- Third grade career education students exhibit some lack of preference for the trade and semi-professional occupations, these are still within normal limits.
- Third grade career education students seem to be selecting increasingly, over the three year span of the program, toward the professional category.

The results of the OAS at grades 9 and 11 are not available due to a lack of completed instruments at these grade levels. There are, however; certain trends that might have been expected if these instruments and results had been available. These trends arise from the use of this instrument in other career education project evaluations by the evaluator.

- As grade level increases so does the preference away from careers with low pay and status and minimal training requirements.
- As grade level increases so does the tendency to pick careers that require secondary school training but not an extensive training such as that required to be a lawyer.

The evaluator's past experience with this and other projects suggests that students involved in career education projects are keenly aware of the relationship between educational level and careers. They are coincidently aware of the relationship between level of education and social status and the intangible rewards of certain careers.

STUDENT ATTITUDES TOWARD CAREER DEVELOPMENT

As a measure of student attitudes toward career development IBEX worked with the educators and staff of the project during the 1973-74 school year to develop a multivariate measure of this important facet of student outcome.

The Career Awareness Development Inventory

The Career Awareness Development Inventory was developed by IBEX the fall of 1975 as an experimental measure of:

1) the ability of students to relate social skills learned in school to job requirements;
2) The ability of students to relate academic skills learned in school to job requirements;
3) the aspiration level of students, more carefully defined as economic understanding of each job.

Statistical Treatment

Each of the above scales uses fifteen items. Each score was corrected for guessing by the formula:

$$R_c = \frac{(R - W)}{N-1} + 10.$$

R = Number of right answers
W = Number of wrong answers

Once corrections for guessing had been computed, mean (average) raw scores (right answers) were computed for each subscale at each grade level and for the entire test population (grades 6,9). A standard deviation was also computed for each mean or distribution.

Interpretation of Tables

Tables 6 and 7 use the $\bar{X}$ line to represent the mean for the entire tested population. The $\bar{X}$ line represents a mean of 10.

There is still much to be learned concerning the validity and reliability of this instrument (CADI). It has been administered to nearly 15,000 students since the spring of 1974, and a technical report is in process.

The results of the CADI for grade 6, Table 6, indicate that:

- The sixth grade career education students score above the mean on all three scales, social skills, academic skills, and aspiration level.

- The pattern of results of the last three years remains essentially the same with the academic skills scale being higher than social skills scale, which is usually higher than the student aspiration level. There was, however, an increase in the aspiration level of the sixth grade students this year to slightly above the mean.

- The results of the ninth grade Career Awareness Development Inventory (CADI) present only the results from the 1973-74, 1974-75 administration of the instrument. The results for 1975-76 are not available since no instruments were completed by the schools who were asked to participate. Based, however, on the previous years' patterns of results, we could logically have expected that social skills and academic skills would have been above the mean and student aspiration level would have been close to the mean of the norm group.

This and previous years' results seem to indicate that students in the Career Education Project are able to relate social skills learned in school to job requirements. The students tested further indicate that they can relate academic skills learned in school to job requirments. The student results also indicate, in grades 6 and 9, that they have a good grasp of the economic parameters of careers.

SCALE 2 - GROUP INTEGRATION

Students with high scores view themselves as vital members of a group. The group respects and solicits input from the individual student in the decision making process. Students with low scores do not see themselves as a member of a group and have difficulty in group dynamics. Three items highly related to this scale are: Do people care what you think? Do you keep your problems to yourself? Do most people understand you?

SCALE 3 - LEADERSHIP/ASSERTIVENESS

Students with high scores view themselves at the centroid of the decision making process. They are confident about the quality, validity and reliability of their decisions and the processes which enabled them to reach those decisions. Students with low scores are not so sure about either. Three items highly related to this scale are: Do your friends consider you to be a leader? Do you enjoy doing things more if you are the leader? In arguments, does your point of view usually win?

SCALE 4 - INDEPENDENCE/RESPONSIBILITY

Students with high scores would rather make decisions for themselves because they see themselves as the ultimate beneficiary of those decisions. They have a clear set of values and are honest in their perceptions of themselves and others. Students with low scores would rather let others make decisions in which they have little confidence in the outcome. Four items highly related to the scale are: Would you rather let someone else decide important things for you? Do you like to decide things for yourself? Can you be depended on? Do you have a clear feeling of what's right and what's wrong?

SCALE 5 - TASK-DECISION INSULARITY

Students with high scores on this scale have a tendency to vacillate in either task attendance or decision making. Extrinsic factors that impinge on a situation are often the causal agents that cause this student to act. The student with low scores is a self starter who acts with decisiveness and alacrity. Four items highly related to this scale are: Do you hate to be told what to do? Do you start a lot of things that you never finish? Do you try to put off big decisions as long as possible? Do you try to avoid making difficult decisions?

SCALE 6 - LOGICAL ENTROPY

Students with high scores on this scale plan their decisions very carefully with an attempt to integrate all perceived factors that influence the situation. The null set does not exist as a realistic option. The student with high scores on this scale will accept a problem as it exists and make limited attempts to solve it.

Four items highly related to this scale are: Plan your choice carefully, or let someone else decide for you; Pick the first decision that comes to your mind or carefully think the situation through; Follow your conscience or put off making the decision; Choose without thinking about it or use your common sense.

Based on our experience as the evaluator for this project and our experience with the Decision Making Scale, several statements regarding the projected results for this year can be made.

- Had student results been available, the scores would have shown across all scales more regression toward the mean. This regression toward the mean would have increased as grade level increased.

- Had results been available, they would have shown an increase in these scales: Decision Integrity, Leadership/Assertiveness and Task Decision Insularity. This increase on these scales would have been grade specific, the higher the grade level the greater the increase. Students would have also shown a slight decrease in Group Integration as grade level increased.

The data available, 1974-75 results of the Decision Making Scales, indicate that the Decision Making proclivities of students tested and we must assume, therefore, students engaged in the project,are sound and in some cases higher than the norm.

TEACHER SURVEY

Responses from teachers at the elementary level indicated that, most commonly, activities relating to career education were employed approximately two to three times a month. Generally, about half of the teachers filling out the Teachers' Practices form in Career Education, at the end of the 1975-76 school year, felt that they utilized such materials as newspaper ads and magazines related to job opportunities, held class presentations in career opportunities, had group discussions related to career education, used library and audio-visual resources in career development and made visits to factories and plants at this rate of frequency.

Approaches to learning in the area of Career Education which teachers incorporated into their daily schedule were similar to what one could expect to see easily ingrained into a regular classroom environment, such as exhibiting displays related to careers and jobs which a teacher could put up and leave in the room, using a center in the classroom or school where Career Education resource materials are available and Career Education-oriented activities take place and, lastly, making a conscious effort to impart Career Education awareness into the everyday teaching of basic skills.

At the opposite end of the scale, some approaches to representing Career Education to students are practically never used by teachers. Over 50% of the teachers responding said they never used local resource persons in Career Education to assist them in their career education endeavors. Similarly, teachers did not take their students to visit either self-employed persons or professional people to introduce to their students any new or unique ideas about jobs. Overwhelmingly, the last two items on the Teachers'

Practices form were not used by teachers in their Career Education planning. Over 75% of the teachers said they did not use professional employment agencies to help in their Career Education efforts; over 60% did not use the Career Development Resource Center at Browne Junior High School to supplement their own work in career development.

At the junior high level, responses by teachers reveal the same trends that occurred at the elementary level. That is, whatever was available to enhance the presentation of career development goals and ideals, teachers most frequently used their materials and resources about two or three times a month. And again, such usage pertained mainly to the use of newspaper ads and magazines, library resources and audiovisual facilities, and group discussions. In addition, teachers at the junior high level commonly integrated interrelation of concepts and career into their classroom teaching.

Only one item on the form was cited by teachers as being a part of their daily teaching routine. Predictably, this item was the use of displays concerning careers and jobs. Displays provide an environment for daily consideration of careers and job opportunities without teachers having to actively plan for specific time allotments on the subject.

Two of the four items listed by the majority of teachers at the elementary level as never being used were also cited by junior high school teachers as not being a part of their curriculum. These included visits to self employed persons and visits to factories and plants, with joint planning at the Career Development Resource Center, Browne Junior High, cited as taking place only two to three times per year. In contrast to the elementary level teachers, a high percentage of junior high school teachers responded in equal numbers that they used a Career Activities Center in their own school either never or only two or three times a year.

Overall, responses by these teachers were more uniformly distributed - i.e., there were fewer areas where responses in one category were overwhelmingly greater than they were in any of the other categories for any particular item under consideration. Only on the item referring to the use of Professional Employment Agencies was there an enormous gap between the "never" response and the next highest response checked off.

Thirteen teachers completed forms from the senior high level. Responses from these teachers are consistent with those of the other two educational levels. The one general exception to this rule is that there is a slight increase in teachers stating that, overall, materials, discussion groups and other Career Education-oriented activities were utilized two or three times a year per category rather than two or three times a month as expressed by elementary and junior high school teachers. Senior high school teachers were in strong agreement over the issue of using self-employed individuals or making visits to factories or plants. Congruent with previous input, such approaches to Career Education were virtually never put into practice.

The completed Teachers' Practices form clearly indicates which strategies for the teaching of Career Education and awareness about job opportunities are easily and practically incorporated into daily, weekly, or even monthly classroom activities. These approaches are not costly to effect, they do not necessitate traveling or obtaining parental permission (as would be needed for field trips, for instance), and they do not require the efforts of joint planning with affiliated Career Education personnel. Thus, it is apparent that teachers wish and choose to make Career Education a supplement and enhancement to everyday instruction in as smooth and subtle a manner as possible.

The following tables illustrate in what category the majority of teachers responded for each of the nineteen items, separated by the level of education in which they are teaching.

IBEX
CAREER EDUCATION
TEACHERS' PRACTICES

Elementary Level

	Daily	2-3 Times Weekly	2-3 Times Monthly	2-3 Times Yearly	Never
1. Career Education Materials	8	31*	8	6	
2. Class Presentation of Career Opportunities	4	19	21	7	2
3. Newspaper Ads and Magazines related to Job Opportunities	5	15*	15*	7	7
4. Interrelation of Concepts and Careers	11	18*	14	6	
5. Career Activities Center in Your School	14*	12	10	12	4
6. Displays Concerning Careers and Jobs	25*	3	16	8	1
7. Career Education Films or Filmstrips	3	6	26*	16	3
8. Use of Local Resource Persons in Career Education	4	3	9	24*	9
9. Visits to Self-employed Persons		1	5	20	26*
10. Visits to Factories or Plants		1	6	17	27*
11. Career-related Role Playing and Simulations	1	11	21*	11	8
12. Visits to Professional Persons		1	10	14	20*
13. Group Discussion of Careers and Job Opportunities	4	13	21*	14	2
14. Pupil Selection of Career Field of Interest	1	7	20*	16	4
15. Integration of Basic Skills with Career Education	19*	16	11	5	
16. Use of Library Resources Related to Careers	2	17	21*	6	2
17. Use of Audio/Visual Facilities in Career Education	2	15	19*	12	1
18. Use of Professional Employment Agencies		2	2	8	34*
19. Joint Planning using the Career Development Resource Center at Brown Jr. High		1	3	15	32*

* Indicates most frequent responses

IBEX
CAREER EDUCATION
TEACHERS' PRACTICES

Junior High Level

	Daily	2-3 Times Weekly	2-3 Times Monthly	2-3 Times Yearly	Never
1. Career Education Materials	5	11	17*	2	3
2. Class Presentation of Career Opportunities	4	10	11*	7	2
3. Newspaper Ads and Magazines related to Job Opportunities	5	8	12*	10	2
4. Interrelation of Concepts and Careers	7	9	20*	4	1
5. Career Activities Center in Your School	2	8	9*	8	8
6. Displays Concerning Careers and Jobs	14*	2	13	10	2
7. Career Education Films or Filmstrips	2	8	13*	10	6
8. Use of Local Resource Persons in Career Education	2	3	13*	16*	5
9. Visits to Self-employed Persons	1	1	4	13	20*
10. Visits to Factories or Plants			2	16	19*
11. Career-related Role Playing and Simulations		2	14	16*	6
12. Visits to Professional Persons	1	4	7	16*	8
13. Group Discussion of Careers and Job Opportunities		4	18*	12	2
14. Pupil Selection of Career Field of Interest	2	4	17*	13	5
15. Integration of Basic Skills with Career Education	8	12*	6	5	1
16. Use of Library Resources Related to Careers	5	8	14*	11	3
17. Use of Audio/Visual Facilities in Career Education	3	9	11*	10	4
18. Use of Professional Employment Agencies		2	2	9	21*
19. Joint Planning using the Career Development Resource Center at Brown Jr. High	1	1	8	16*	13

* Indicates most frequent responses

IBEX
CAREER EDUCATION
TEACHERS' PRACTICES

Senior High Level

	Daily	2-3 Times Weekly	2-3 Times Monthly	2-3 Times Yearly	Never
1. Career Education Materials	1	5*	4	3	
2. Class Presentation of Career Opportunities		1	6*	4	1
3. Newspaper Ads and Magazines related to Job Opportunities			6*	6*	1
4. Interrelation of Concepts and Careers		4	7*	2	
5. Career Activities Center in Your School	2		4*	4*	2
6. Displays Concerning Careers and Jobs	8*		3	2	
7. Career Education Films or Filmstrips			1	6*	4
8. Use of Local Resource Persons in Career Education			1	8*	4
9. Visits to Self-employed Persons				2	11
10. Visits to Factories or Plants				1	12*
11. Career-related Role Playing and Simulations			3	6*	4
12. Visits to Professional Persons			1	5	6*
13. Group Discussion of Careers and Job Opportunities		1	7*	5	
14. Pupil Selection of Career Field of Interest		2	3	6*	1
15. Integration of Basic Skills with Career Education	2	3	6*	2	
16. Use of Library Resources Related to Careers	1	1	3	5*	2
17. Use of Audio/Visual Facilities in Career Education		1	2	7*	3
18. Use of Professional Employment Agencies				4	9*
19. Joint Planning using the Career Development Resource Center at Brown Jr. High				5	8*

* Indicates most frequent responses

CAREER EDUCATION COORDINATORS

Coordinators of the Career Development Exemplary Project had much acclaim for the work of the program thus far and little, if any, criticism about how the program is being activated. Seen as the most beneficial aspect of the project is its significance in developing early student awareness of all sorts of career opportunities and, accompanying this goal, a better idea about self and the growth of a positive self-image. Incidentally, one coordinator believed this program is especially beneficial for the slow learner through the work of the "hands-on" activity.

Taking a long range look at the achievements of the exemplary project over the last three years, coordinators expressed the opinion that the strongest aspect of the project has been its success in meeting the needs of all persons involved in it, whether they were the counselors, teachers, parents or students affiliated with the project. Ideas about the project's objectives and activities were exchanged regularly among key persons. This resulted in the overall boosting of morale. Moreover, the well designed and effective organizational patterns of the program ensured the proper development and dissemination of curriculum materials.

As an added compliment to the works of the Career Development Exemplary Project, coordinators had only minor suggestions to make in order to improve the project. The areas that could be improved included providing more assistance and follow-through from regional staff members on the local level, receiving more supervision and more assistance from project leaders, and providing a chance for teachers to be involved in the program. The only other area mentioned as needing improvement is the way in which materials are received and distributed.

The last item to be considered by coordinators of the project was funding. Would coordinators like to see the project locally funded, and, if so, why? All responses to this question were positive, and the reasons given reinforced how important the coordinators believe the program to be. Essentially, local funding would more definitely assure the even distribution of materials. But beyond this technicality, career development is seen as a vital part of education for all children. The Career Development Exemplary Project is viewed as beneficial and successful in developing career awareness not only in the classroom but in the entire community from which it is being generated.

BUDGET CONSIDERATIONS

The 1975-76 evaluation of the career development exemplary project carefully studied and herein reported the budget for the project. Table A repeats information from previous reports concerning the per pupil cost of the project.

TABLE A

ANNUAL TOTAL AND PER PUPIL COST FOR THE CAREER DEVELOPMENT EXEMPLARY PROJECT FOR FY 1971 - 1972 - 1973 - 1974 - 1975

Year	Total Budget	Number of Students Served	Per Pupil Cost in dollars
1971	$205,813.00	650	$316.63
1972	219,437.00	823	266.63
1973	345,024.00	2662	129.61
1974	342,724.00	3155	108.63
1975	295,596.89	5507	53.67
1976	349,825.50	12,673	27.60

The cost per pupil has been decreasing since the inception of the program. The reason for this decrease, given fluctuations in the level of funding, is in the increase in the absolute number of students served.

The reduction of the per pupil cost over the six year period of the project is an expected outcome considering the level of funding and the increasing student population of the project. The average cost

of the program for the six years was $293,070.00. The average number of pupils served was 4245.00. The average per pupil cost for the life of the program was $69.03 a year.

The evaluator has reviewed the project budget for the 1975-76 school year and can find no disproportionate amount of funds that were expended in any grade level to the detriment of another.

MODEL GENERALIZABILITY

The District of Columbia Schools seeks to answer the question of whether the Career Education Program, as it has evolved over the course of the project, is adaptable to the District of Columbia schools as a whole. The decision to integrate into an existing curriculum an educational concept which would require modification of teacher methodologies, and could lead to a reorientation of the existing educational scheme of the District of Columbia Schools, is not one to be taken lightly. In considering our recommendation in this regard, the evaluator reviewed past evaluations of the project and drew upon our experience with this project and others; we considered several factors in our review and recommendations.

STUDENT OUTCOMES

The changing scope and focus of the evaluation over the past six years makes a real longitudinal evaluation difficult. The fact that different instruments were used in various settings with different students from year to year and no single group of students was tracked over the length of the program, makes any definitive statement difficult. What the project has demonstrated is that it did have a positive effect on most conventional student career education outcomes. The program did have a positive effect

on student attitude toward self, it did increase their knowledge of the world of work, and it did provide this meaningful information upon which to select a career. This positive increase could not have occurred if there had not been a Career Education Program.

TEACHER AND ADMINISTRATOR OUTCOMES

Review of past evaluations and this year's evaluation shows that the concept of career education has had ever strong (increasing) support from both teachers and administrators. No pecuniary element existed in this support,as a review of the budget(s) will show. What our experience and teacher and administation data show is that support for the program came about as teachers understood the concept and saw it implemented,and saw the positive effect the program had on the students it served.

COMMUNITY SUPPORT

This component of the program has been the most difficult to document. We, as evaluators, have, however, attended various functions and meetings held with and for the parents of the communities that the project served. In our conversations with parents, we were struck with the strong support that these parents stated for the programs. A review of the parental involvement over the length of the program shows that parental involvement and support increased.

Taking into consideration the aforementioned factors and the relatively modest cost of the program, we most certainly recommend the adoption of the career education program by the District of Columbia schools.

APPENDIX A

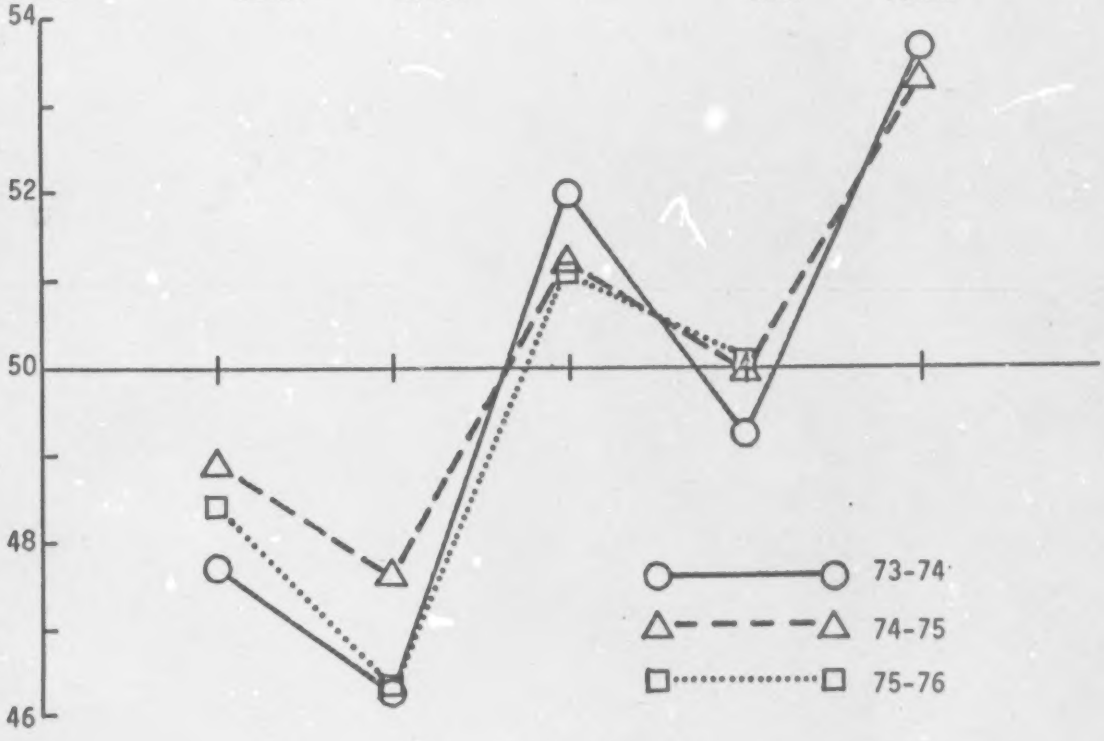
TABLE 1

PRIMARY SELF OBSERVATION SCALES

Grade 3: N_1(73-74) = 179; N_2(74-75)=236; N_3(75-76) = 114

Means and Standard Deviations

	$\bar{X}$			S.D.		
	73-74	74-75	75-76	73-74	74-75	75-76
1. Self Acceptance	47.71	48.87	48.42	8.67	8.28	9.83
2. Social Maturity	46.26	47.60	46.28	9.64	8.04	9.35
3. School Affiliation	51.98	51.18	50.10	8.56	9.30	10.02
4. Self Security	49.24	49.97	50.05	8.52	8.11	10.19
5. Achievement Motivation	53.67	53.31	*	9.47	11.36	*



* No longer available.

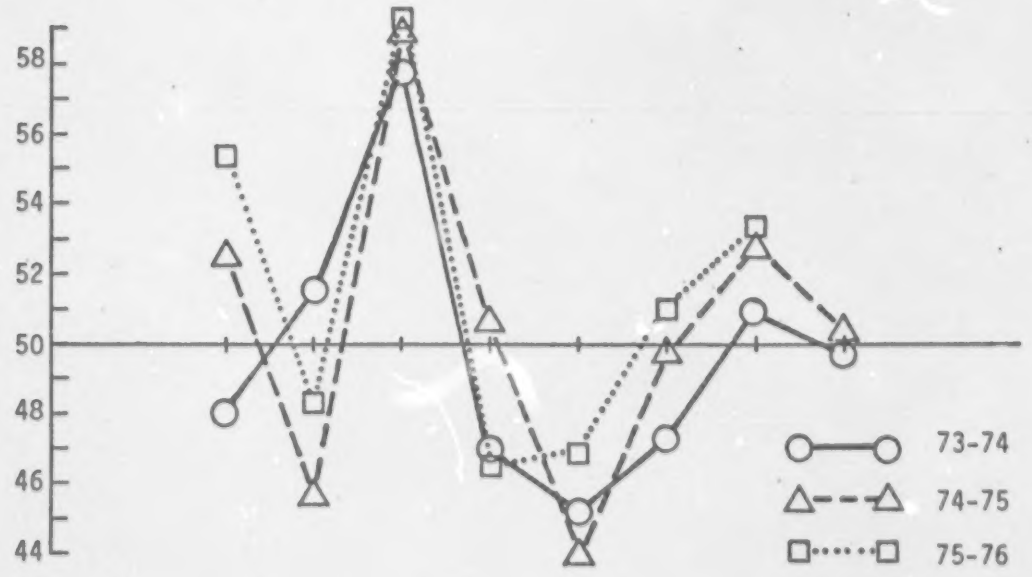
TABLE 2

INTERMEDIATE SELF OBSERVATION SCALE

Grade 6: N_1(73-74) = 97; N_2(74-75) = 65; N_3(75-76) = 26

Means and Standard Deviations

	$\bar{X}$			S.D.		
	73-74	74-75	75-76	73-74	74-75	75-76
1. Self Acceptance	48.01	52.45	55.38	9.09	9.11	6.80
2. Social Maturity	51.56	45.61	48.38	9.21	11.26	6.81
3. School Affiliation	57.81	58.90	59.27	10.38	8.89	8.31
4. Self Security	46.95	50.59	46.54	9.98	9.92	10.61
5. Social Confidence	45.28	43.94	46.77	9.17	9.78	8.71
6. Peer Affiliation	47.28	49.88	51.04	10.76	9.82	10.03
7. Teacher Affiliation	50.94	52.72	53.23	8.86	10.47	7.86
8. Achievement Motivation	49.76	50.41	*	9.30	6.34	*



* No longer available

TABLE 3

JUNIOR HIGH SELF OBSERVATION SCALES

Grade 9: $N_1(74\text{-}75) = 55$

Means and Standard Deviations

	$\bar{X}$ 74-75	S.D. 74-75
1. Self Assertion	56.6	5.4
2. Self Acceptance	50.6	8.5
3. Self Security	50.8	8.6
4. Social Maturity	42.4	10.4
5. Social Confidence	52.1	9.1
6. Family Affiliation	54.8	6.1
7. Peer Affiliation	50.8	5.8
8. Teacher Affiliation	50.2	7.9
9. School Affiliation	51.5	9.1

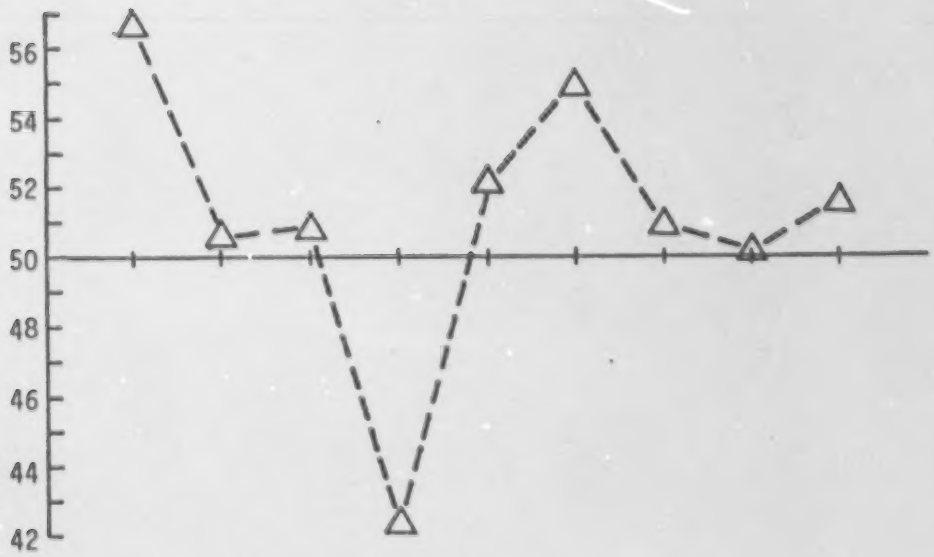


TABLE 4

SELF OBSERVATION SCALES
Grade 11

Means and Standard Deviations

N(75-76) = 16

		$\bar{X}$	S.D.
1.	Self Acceptance	46.81	13.39
2.	School Affiliation	54.00	7.71
3.	Self Security	52.75	9.33
4.	Social Confidence	46.31	11.03
5.	Peer Affiliation	48.19	7.89
6.	Teacher Affiliation	51.00	9.58
7.	Self Assertion	50.13	10.65

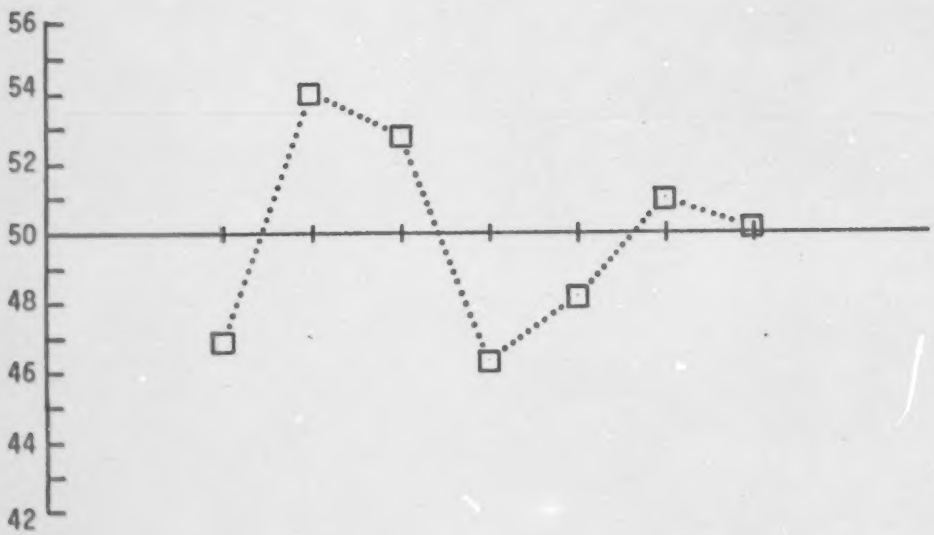


TABLE 5

PRIMARY OCCUPATION AWARENESS SURVEY

Grade 3
Mean JAQs by Category
N_1 = (73-74); N_2 = 45 (74-75); N_3= 80 (75-76)

Category	73-74	74-75	75-76
1. Unskilled	69.02	101.32	109.0
2. Trade	124.62	123.72	117.50
3. Technical	94.4	102.63	94.50
4. Semi-Professional	103.87	97.53	91.0
5. Professional	87.73	89.33	105.0

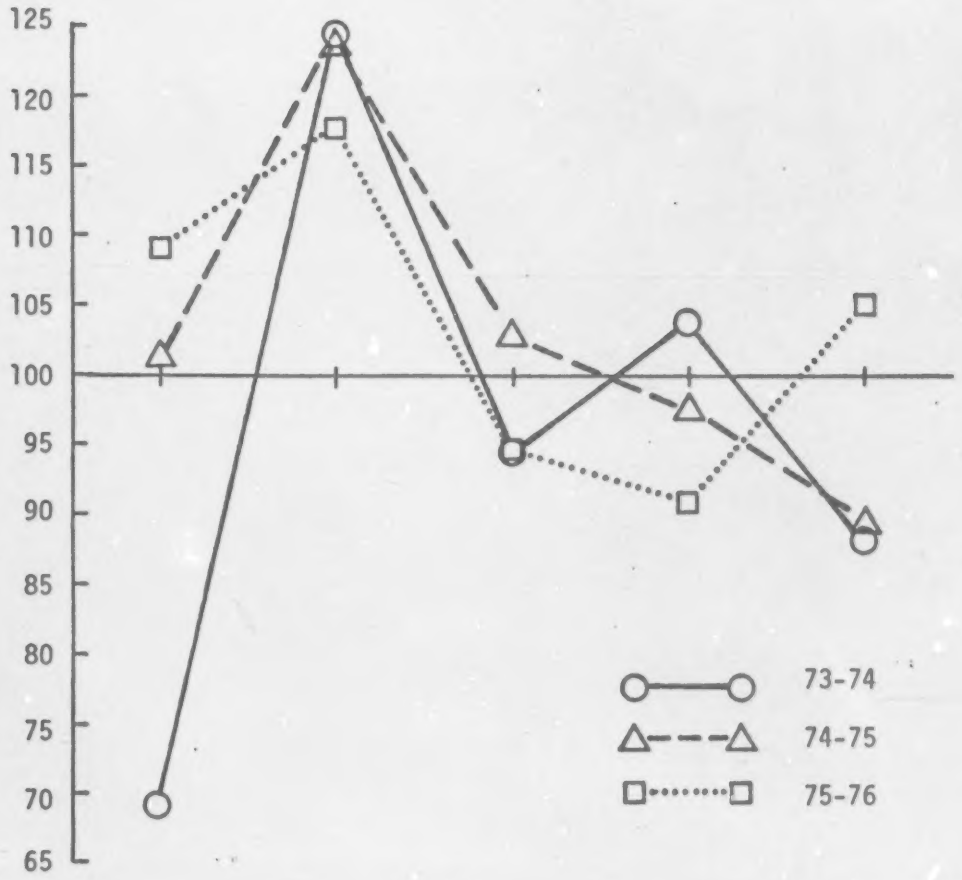


TABLE 6

CAREER AWARENESS DEVELOPMENT INVENTORY

Grade 6: N_1(73-74) = 97; N_2(74-75) = 16; N_3(75-75) = 39

Means and Standard Deviations

	$\bar{X}$			S.D.		
	73-74	74-75	75-76	73-74	74-75	75-76
1. Social Skills	14.19	10.85	10.88	3.01	3.72	2.62
2. Academic Skills	15.39	12.65	11.87	3.46	3.75	2.63
3. Aspiration Level	9.75	9.18	10.02	1.67	2.83	2.45

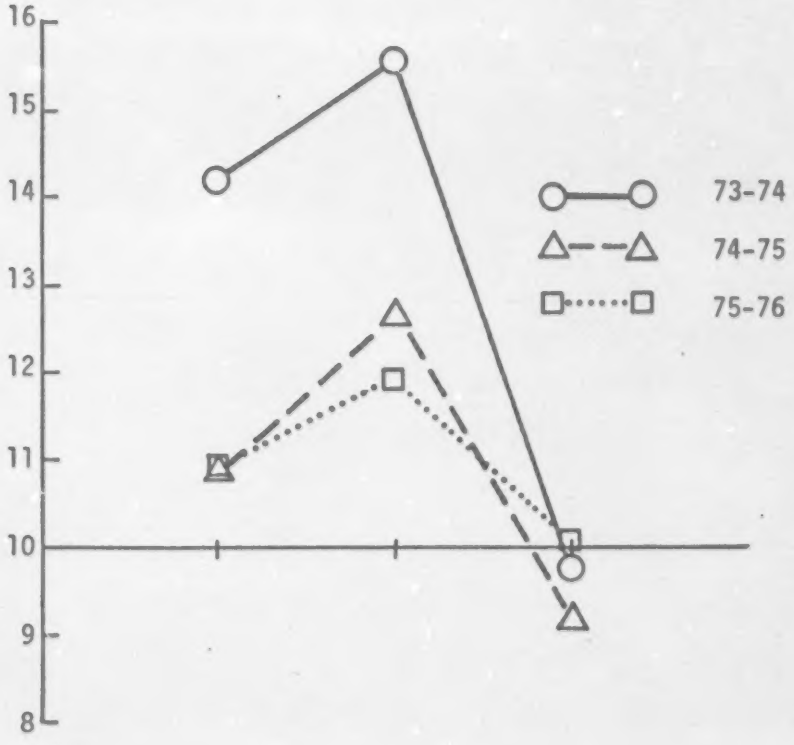


TABLE 7

CAREER AWARENESS DEVELOPMENT INVENTORY

Grade 9: N_1(73-74) = 125; N_2(74-75) = 64

Means and Standard Deviations

	$\bar{X}$		S.D.	
	73-74	74-75	73-74	74-75
1. Social Skills	13.08	12.03	3.62	3.59
2. Academic Skills	16.00	12.71	3.97	3.50
3. Aspiration Level	9.92	9.60	1.93	2.38

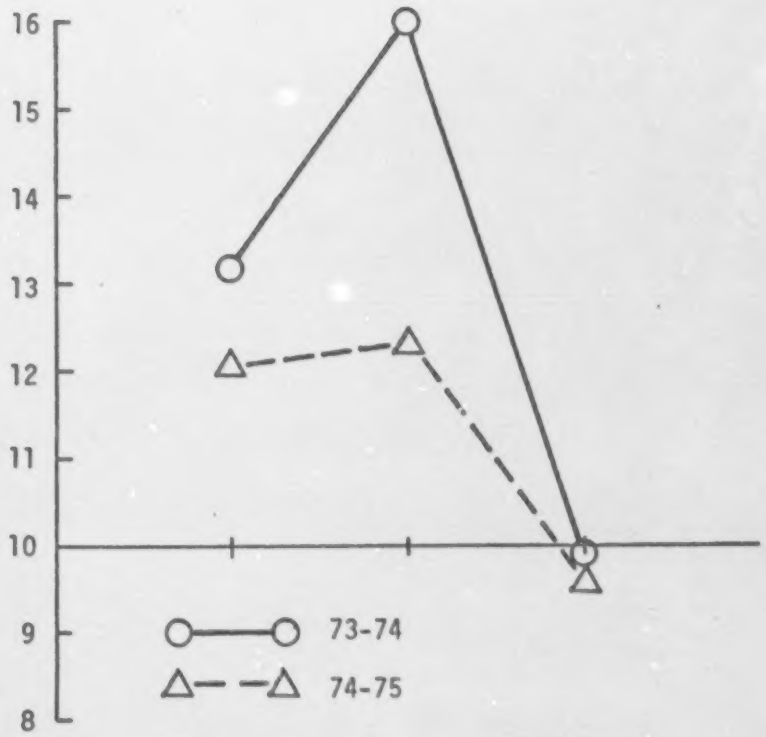


TABLE 8

DECISION MAKING SCALES

Grade 9: N (74-75) = 31
Grade 11: N (74-75) = 37

Means and Standard Deviations

	X		S.D.	
	1974-75			
	9th	11th	9th	11th
1. Decision Integrity	48.6	48.0	8.9	9.1
2. Group Integration	53.9	50.4	8.2	8.3
3. Leadership/Assertiveness	46.1	47.1	8.2	8.5
4. Independence/Responsibility	49.2	47.5	8.4	8.5
5. Task-Decision Insularity	51.8	52.9	8.8	7.9
6. Logical Entropy	51.5	47.3	9.7	6.8

FY 1975 EXPENDITURES BY GRADE LEVEL

	K-3	4-6	7-9	10-12	T	Fed. Z03 Budget	Ex.
Personnel(Clerical & GS	41,256	41,256	41,256	41,256	166,104	9105	9105
Personnel (Professional TS						79830	79830
Benefits	3,842 22	3,842 22	3,842 22	3,842 22	15,369	7714	7714
Substitutes	1 875	1 875	1 875	1 875	7 500	7000	6386
Travel							
Field Trips	2 700	2 800	2 750	2 750	11 000		
Rental Off equip.	200	200	200	200	800	800	800
Communications	153 50	153 50	153 50	153 50	614		
Printing & Repro.			4 500		4 500		
Fees Prof. Serv.	250	250	250	250	1 000		
Training	6 333	6 333	3 166 50	19 000			
Misc.	3 404	3 403	3 404	3 404	13,615		
Repairs	50	50	50	50	200		
Periodicals	100	500	800	600	2,000		
Ed. Supplies	9,090	9,090	9,090	9,090	36,360	1,000	1,000
Provisions			250		500		
Office Supplies	855 50	855 50	855 50	855 50	3,422	3,122	3,122
Textbooks	2,070 50	7,378 89	543 13	349 25	11,000		
Equipment	1,000	1,200	700	400	4,000		
Stipends	12,506 88	12,506 88	12,506 87	12,506 87	53,027.50		
	85,686.60	91,693.99	86,192.72	79,893.34	350,011.50	108,571.50	107,957.00

FY 1975 FUNDS BUDGETED AND EXPENDED

	State C R D			Title I C C 1			Grand Totals		
	Budgeted	Expended		Budgeted	Expended		Budgeted	Expended	Bal.
Personnel(Clerical & GS	8861	8861		68308	68308		166104	166104	0
Personnel (Professional TSA Benefits)	736	736		6919	6919		15369	15369	0
Substitutes T ravel				1000	1000		1000 7500	1000 6886	0 614
Field Trips	9000	9000		2000	2000		11000	11000	———
Rental Off. equip.							800	800	———
Communications	500	500		114	114		614	614	———
Printing & Repro. Printing	4500	4500					4500	4500	
Fees Prof. Serv.				1000	1000		1000	1000	
Training	18,000	18,000		1067	800		19,067	18800	267
Misc.	10,000	10,000		3615	3615		13,615	13615	
Repairs	200	200					200	200	
Periodicals	2,000	2,000					2,000	2000	
Ed. Supplies	22,360	22,360		13,000	13,000		36,360	336360	
Provisions							500	250	250
Office Supplies				300	250		3,422	3300	122
Textbooks	6,000	6,000		5,000	5,000		11,000	11000	
Equipment	3,000	3,000		1,000	1,000		4,000	4000	
Stipends	51,000	51,000		3,000	3,000		54,000	53027 50	972 50
	136,157.00	135,184. 50		106,323.00	106,006.00		358,937.00	349825 50	2225.50